

# NATURAL RESOURCES CONSERVATION SERVICE

## CONSERVATION PRACTICE STANDARD

### Hedgerow Planting

(Feet)

Code 422

#### DEFINITION

Establishment of dense vegetation in a linear design to achieve a natural resource conservation purpose.

#### PURPOSES

Providing at least one of the following conservation functions:

- Food, cover and corridors for terrestrial wildlife.
- Food and cover for aquatic organisms that live in watercourses with bank-full width less than 5 feet.
- Living fences.
- Boundary delineation.
- Contour guidelines.
- Screens and barriers to noise and dust.
- Improvement of landscape appearance.

#### CONDITIONS WHERE PRACTICE APPLIES

This practice applies wherever it will accomplish at least one of the purposes stated above.

#### CRITERIA

##### General Criteria Applicable to All Purposes

Plans and application of hedgerow planting shall comply with all applicable federal, state, and local laws and regulations.

Hedgerows shall be established using woody plants, and/or perennial bunch grasses producing erect stems attaining average heights of at least 3 feet persisting over winter.

The species, type of plant material, location, layout and density of the planting will accomplish the purpose and intended function.

Species shall be adapted to the soils, climate and site conditions. See Field Office Technical Guide (FOTG) Section II for specific woody species information.

Native plant species shall be used whenever possible. Known non-native invasive species shall not be used.

Woody vegetation shall be established following guidelines from FOTG Standard Tree/Shrub Establishment (612) concerning site preparation, planting dates, planting stock size, and planting and storage guidelines for woody stock.

Woody plants shall be established without compromising the integrity of:

1. Property Lines
2. Fences
3. Utilities
4. Roads
5. Legal Drains
6. Other Easement Areas or Right of Ways

Where a right-of-way easement exists, written permission shall be obtained from the owner before the hedgerow is planted on the easement.

The practice shall be protected from livestock grazing and trampling to the extent necessary to ensure performance for the intended purposes.

All grazing by livestock shall be part of an approved grazing management plan.

**Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the Natural Resources Conservation Service.**

**Additional Criteria to provide wildlife food, cover, and for corridors**

- Species selected shall be from FOTG Standard Upland Wildlife Habitat Management (645).

*For Wildlife Food and Cover*

Establish at least two species of vegetation with a minimum established width of 15 feet.

Selected plants shall provide cover and/or food to support the targeted wildlife species.

*For Wildlife Corridors*

The minimum established width shall be 50 feet. The corridor shall include at least three rows of shrubs, one row of a soft mast tree species, and one row of a hard mast tree species.

**Additional Criteria to provide cover for aquatic organisms that live in watercourses with bank-full width less than 5 feet**

The species selected for plantings adjacent to small watercourses shall achieve sufficient height at maturity to shade the watercourse. For larger watercourses, e.g. streams and rivers consult FOTG Standard Riparian Forest Buffer (391).

**Additional Criteria to delineate property and field boundaries**

Plant one row of trees or shrubs or establish a 5-foot wide strip of stiff stemmed grasses (see Table 1.) to delineate field or property boundaries.

To delineate a property boundary, trees or shrubs shall be planted a minimum of 8 feet from a property line unless landowners agree that woody vegetation can be established on the centerline of the property line.

**Additional Criteria for contour strips**

Hedgerows shall be aligned so they provide permanent contour markers supporting implementation of FOTG Standards Contour Farming (330) and Contour Stripcropping (585). Refer to those conservation practices standards (above) for alignment criteria.

**Additional Criteria for screens and barriers to noise and dust**

Screening hedgerows provide privacy, hide unsightly areas from view or reduce noise.

Hedgerows shall be located where they most completely obstruct a line of sight, offensive sound, or dust.

Selected plants shall attain a height and fullness sufficient to break the line of sight, or baffle sound and dust.

If only one row is planted, use evergreen species to provide year round benefits.

**Additional Criteria for improvement of landscape appearance**

The hedgerow design shall meet the aesthetic objectives of the landowner.

Plants shall be selected based upon the landowner's preferences for color, texture, and growth habit.

**CONSIDERATIONS**

Consider obtaining technical assistance from a professional forester when the plantings include woody vegetation.

When wildlife is a primary concern, consider developing a management plan with assistance from a professional wildlife biologist.

Consider planting plugs and/or container stock of herbaceous plants, shrubs, and trees for faster establishment.

Consider leaving a maintenance strip (greater than 8 feet) on the hedgerows adjacent to cropland.

Consider using a support stake when planting either container trees or balled and burlapped stock.

Consider adding nest boxes for cavity nesting birds.

Consider adding native wildflowers to hedgerows for aesthetics diversity. For seeding rates refer to, FOTG Standards: Restoration and Management of Declining Habitats (643) or Upland Wildlife Habitat Management (645).

Consider using plant species tolerant of salt spray near roads and highways that are deiced in the winter with salt. See NRCS Plant Data Center web site for appropriate species.

Consider using dense and thorny plant materials to form thickets for songbirds to nest and as a refuge to escape predators.

Consider the effect of drifting snow when planning hedgerows around roads, farmsteads, and other areas where snow deposition could create a problem.

Consider selecting species from Conservation Tree/Shrub Suitability Groups (CTSG) for windbreaks, Section II (FOTG). Windbreak species from CTSG's can be viewed at the NRCS Indiana web site.

When planting woody vegetation, consider using locally adapted species from no more than 200 miles north or south of the planting site.

## PLANS AND SPECIFICATIONS

Plans and specifications for this practice shall be prepared for each site in accordance with the criteria for this practice.

Specifications for re-vegetation should include species, timing and method of application.

Plant species shall be selected from FOTG Standards: Restoration and Management of Declining Habitats (643), Upland Wildlife Habitat Management (645), Riparian Forest Buffer (391), Section II FOTG, or from Table 1.

**Table 1. – Stiff Stemmed Grasses for Hedgerows<sup>1</sup>**

Species	Soil Drainage Parameters	Mature Height (feet)
Big Bluestem <i>Andropogon gerardii</i>	SPD-ED	3-9
Indiangrass <i>Sorghastrum nutans</i>	PD-ED	3-5
Switchgrass <i>Panicum virgatum</i>	VPD-WD	3-6

<sup>1</sup>For seeding rates consult FOTG Standard 643 or 645.

VPD = Very Poorly Drained, PD = Poorly Drained

SPD = Somewhat Poorly Drained, MWD = Moderately

WD = Well Drained, ED = Excessively Drained

## Plant Spacing for Woody Vegetation

### Within rows

Small shrubs	3' - 6'
Large shrubs	5' - 8'
Narrow-crowned trees (Northern White Cedar, Eastern Red Cedar and other columnar varieties)	6' - 10'
Normal-crowned trees	8' - 16'

### Between rows

Between shrub rows	6' - 10'
Between tree rows	12' - 20'
Between tree/shrub rows	8' - 20'

## OPERATION AND MAINTENANCE

Supplemental planting may be required when survival is too low to produce a continuous hedgerow.

Vegetation shall be protected from unwanted fire and grazing.

Pests shall be monitored and controlled.

Periodic applications of nutrients may be needed to maintain plant vigor.

Renovation activities shall be scheduled to prevent disturbance during the wildlife-nesting season.

Where food and cover for wildlife is one of the purposes, management practices and activities are not to disturb cover during the primary nesting period April 1 – July 15. Exceptions may be made to maintain the health of the plant community. Mowing may be needed during the establishment period.

To establish woody vegetation control weed competition during establishment (3 years). Competing weeds, brush, and vines can adversely affect survival, form and rate of woody plant growth. Additional years of weed control may be needed in some instances e.g. to control johnsongrass, quackgrass, or other hard to control weed species.

## REFERENCES

- National Biology Handbook*, Part 614.4,  
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- American Standard for Nursery Stock*. ANSI  
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- Right Tree-Right Place, White Pine and Salt  
Tolerance*, Purdue University, Forestry and  
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- Roadside De-Icing Salts and Ornamental Plants*,  
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Northeast and Midwest United States*, U.S.  
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